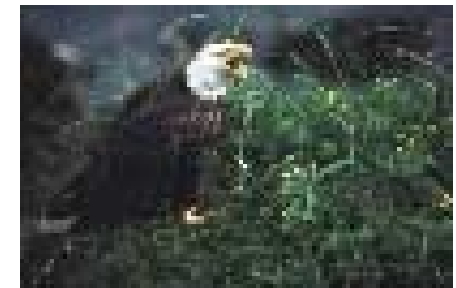
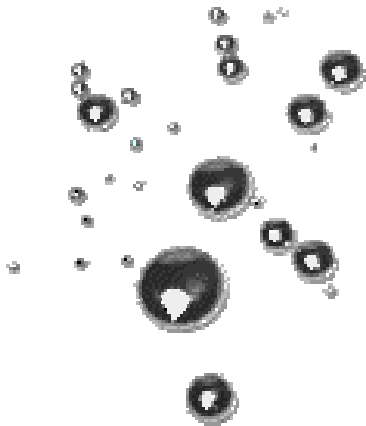


Ecology's PBT Strategy

"Focus on Mercury"



Ecology's PBT Strategy
Will Focus on Mercury
During 2001-2003 Biennium



What is the Issue?

30+ year history of:

Governments

Industries

Municipalities



successfully reducing the release of many harmful chemicals into the environment through stronger permits and improved technologies

However - PBTs are unique...we are finding that-

PBTs can **increase** in environment over time or as one moves up the food chain

Our current "**single media**" **statutes** provide less than a full solution to reducing PBTs

DOH Fish Consumption Advisory For Mercury



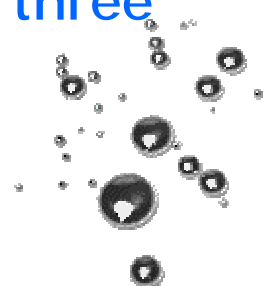
Women of childbearing age and children under six are advised:

Do not eat any shark, swordfish, tilefish, king mackerel or either fresh caught or frozen tuna steaks.

Limit the amount of canned tuna you eat, based upon your bodyweight. **Guidelines are:**

A women weighing 135 pounds should eat no more than one, six ounce can of tuna per week.

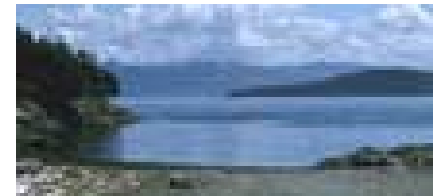
Weekly limits for children under six range from one ounce for a child who weighs about 20 pounds, to three ounces for a child who weighs about 60 pounds.



Many Existing Statutes have a “*Single-Media*” Focus



- | | | |
|-------------------------------------|---|-------|
| ■ Washington Clean Air Act | - | Air |
| ■ (Chapter 70.94 RCW) | | |
| ■ Water Pollution Control Act | - | Water |
| ■ (Chapter 90.48 RCW) | | |
| ■ Pollution Disclosure Act of 1971 | - | Water |
| ■ (Chapter 90.52 RCW) | | |
| ■ Hazardous Waste Management Act | - | Land |
| ■ (Chapter 70.105 RCW) | | |
| ■ Pollution Prevention Planning Act | - | Land |
| ■ (Chapter 70.95C RCW) | | |
| ■ Solid Waste Management Act | - | Land |
| ■ (Chapter 70.105 RCW) | | |
| ■ Model Toxics Control Act | - | Land |
| ■ (Chapter 70.105D RCW) | | |

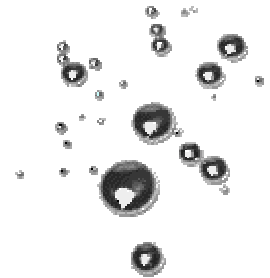


Recent Examples of Successful PBT Reductions



Pulp and Paper Industry

Changed from chlorine bleaching to elemental chlorine free technologies.



Replacing Mercury Dairy Manometers

Grant monies provided to Ecology to replace mercury manometers with non-mercury ones at Washington dairy farms.

Better Erosion Control Measures - Yakima River

TMDL implementation program by irrigation districts in Yakima River Basin to reduce runoff of soils containing residual DDT.

Dept. of Agriculture Pesticide Collection Program

Over 1 million pounds of unused pesticides collected in 11 years of program, reducing potential sources of pesticide contamination to environment.

Specific Language in the State Budget



Bioaccumulative Toxics Strategy – *Funding is provided to implement a strategy to eliminate releases and reduce the existence of persistent, bioaccumulative toxic chemicals (PBTs). Baseline monitoring will be conducted and chemical specific action plans will be developed to reduce PBTs in the environment. One time funding of \$54,000 is included for the Department of Health for their participation in developing this strategy. (State Toxics Control Account)*



PBT Strategy Implementation



Finalizing a (draft) Ecology PBT “Working List” for WA – Public comment until 9/30/02

Focus on mercury:

Develop and implement:

Mercury Action Plan

Mercury Fish Tissue Sampling

Mercury Education



Mercury Action Plan



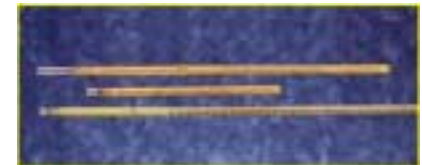
Develop a “mercury action plan”

Goal: Virtual Elimination of use and release of anthropogenic Hg in WA

- | | |
|---------|-----------------------------------|
| Task 1: | Data Gathering |
| Task 2: | Mercury Release Inventory |
| Task 3: | Gap Analysis |
| Task 4: | Initial Prioritization of Actions |
| Task 5: | Outline for Measuring Success |



External advisory group to provide input into mercury action plan



Discrete Mercury Reduction Efforts



Ecology, Health and GA planning mercury auto switch removal/replacement in state cars

Working with local governments to promote, encourage, and assist in development of:

- Household mercury fever thermometer collection/recycling programs

- Expand existing fluorescent light recycling efforts

Working with WA Pharmacists Association on campaign for statewide thermometer exchange in Fall 2002



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Mercury Fish Screening Survey

(and other PBT monitoring efforts)



Mercury screening survey (Jun-Dec 2002)

Analyze mercury levels in edible fish from 20 freshwater areas statewide

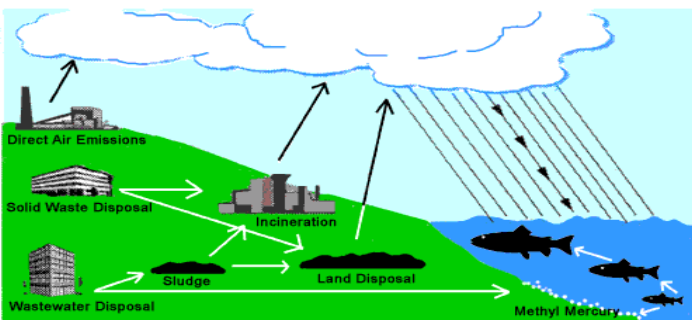
Evaluate covariate data for trend monitoring design

Collect data on potential environmental factors that affect mercury uptake in fish

Long-term PBT Monitoring Project

Goal

Develop a long-term PBT monitoring proposal for legislative funding consideration next biennium.



Mercury Education



Incorporates DOH "community competent" practice and experience of the statewide fish advisory for mercury.

Proposes community involvement in action; thermometer exchange, auto switch exchange, recycling, information sharing.

Information sharing: WA "Quicksilver Review," publications, meetings/presentations.

Ecology and Health web sites Refined.



Preliminary Estimate of Sources of Mercury in Washington



2500 lbs/year* from 22 facilities

(Toxics Release Inventory)

Including 400 lbs/year from one coal powered utility plant



700 lbs/year** (*rough estimate*) from other sources

(primarily disposal of consumer products)

??? lbs/year from naturally occurring sources

Estimated annual total in WA:

3200 lbs/year

- Source: *2000 EPA TRI Report for Washington

WSBOH Briefing - 03/13/02
** Washington Toxics Coalition